EGS I&T Technical Analysis Memorandum (Incremental)

To: ESDIS / Janice Smith / Code 505

cc: ESDIS / Glenn Iona / Code 505
ESDIS / Darryl Lakins / Code 505
ESDIS / Karen Michael / Code 505
ESDIS / Daphne Rodriguez / Code 505

From: EGS I&T Team

Subject: Test Report for EGS I&T Test Version Polling Interface test (EXT09)

1. Summary & Discussion

The purpose of this TAM is to present the final results of the remote polling and transfer of NOAA and Non-EOS Ancillary Data Ingest Test (EXT09). This test was successful with no problems encountered. There are two open DRs against this test case. Both are severity 3 and have been assigned to HITS for analysis. Neither impacted the successful completion of the test or verification of the associated requirements. See Attachment B for a copy of these DRs.

The test was performed using the EOS Ground System (EGS) Test Version Integration and Test Procedures (Baseline), dated February 22, 1996. A copy of this document is located in the Library section of the I&T Internet WWW page a URL http://fairmont.ivv.nasa.gov/it.

The requirements verified by this test are shown in Attachment A (Requirements Verification Matrix). Six requirements allocated to the I&T effort were fully verified by this test, and part of a seventh (EOSD0500 e).

Testing was performed using ECS Ir1 software Version 1.02.

2. Context

EGS I&T testing was performed to verify the ability of the EGS Test Version polling interface to detect and ingest data files placed in the NESDIS and GDAO ingest directory. In this test however, NESDIS and GDAO were simulated by placing the files in directories on the IVV server in Fairmont, WV.

3. Discussion

3.1 EXT09 - Polling and Transfer of NOAA and Non-EOS Ancillary Data

On March 26 was performed on test case EXT09, polling and Transfer of NOAA and Non-EOS Ancillary Data. The test involved the Ingest server at GSFC and host machine

at Fairmont, WV. This test verified the ability of the GSFC ingest server to interface with external communications networks via the ingest subsystem. To allow this remote polling to happen, a new user account was created at the GSFC DAAC to allow the Fairmont machine to have write permission to the ingest server at GSFC. The polling timer was set at 300 seconds for this test. The ingest process was then started and it was verified that polling was taking place by viewing it on the event log page. The DAN_file log was checked to verify that all the files were written to this log. Also verified was that the files were transferred successfully to the local directory (temp_store) by checking the time stamps and the file sizes. This test was performed twice with no problems being encountered. This test is complete.

4. Recommendation

The NOAA and non-EOS Ancillary data interface has been determined to be verified, and is recommended for EGS Test Version general use. The two open DRs should be analyzed by HITS, however they do not impact the use of this interface or the ECS remote polling function. They should be targeted toward the ECS Release A development.

5. Recommended Additional Distribution

ESDIS / Ellen Herring
ESDIS / David Han
HITS / Nitin Vazarkar
HITS / Bob Clinard
LaRC DAAC / Lucy Lee
LaRC DAAC / Chris Harris
EDC DAAC / John Daucsavage
EDC DAAC / Tom Kalvelage
GSFC DAAC / Chris Lynnes

6. Attachments

A: Requirement Verification Matrix
B: Open DRs

Originators: Approved:

_____ _____

George Bazzell
EGS I&T Test Conductor

Gordon Henley
EGS I&T Test Director

_____

William Bryant
EGS I&T Analyst

Attachment A - Requirement Verification Matrix

All requirements have been verified and are considered to have passed the testing.

Traceability and Verification							
Paragraph ID	**Requirement Text**	**Clarification**	**Test Case ID**	**Test Method**			
				I	**A**	**D**	**T**
DADS0145	Each DADS shall be capable of receiving from the ADCs, at a minimum, the following for the purpose of product generation: b. Metadata c. Ancillary data	Applies only to ingest and temporary storage for testing purposes only. Testing of NESDIS and GDAO interfaces.	EXT09.01 EXT09.03				X X
DADS0250	Each DADS shall receive, at a minimum, data in the following forms: b. Electronic communications network	IR-1: This requirement is supported as follows: IR-1 shall have the capability to receive data via an electronic communications network for the purpose of testing external interfaces to the Ingest subsystem.	EXT09.01 EXT09.03				X X
DADS0260	Each DADS shall receive non-EOS correlative and ancillary digital data.	IR-1: This requirement is supported as follows: IR-1 shall have the capability to receive data from NOAA for the purpose of testing the NOAA interface to the Ingest subsystem.	EXT09.01 EXT09.03				X X
EOSD0500	ECS shall perform the following major functions: d. Communications and Networking e. Data Input f. Data Processing	IR-1: IR-1 shall perform the following major functions: 1. Communications and networking utilizing existing VO networks. 2. Data input for the purpose of testing TRMM, NESDIS and	Requirement e. was verified in EXT09 (read clarification text number 2)				X

Traceability and Verification							
Paragraph ID	**Requirement Text**	**Clarification**	**Test Case ID**	**Test Method**			
				I	**A**	**D**	**T**
		GDAO ingest interfaces. 3. Science software Integration and Test.					
EOSD1608	ECS elements shall receive from EPDSs the following at a minimum: a. Data products e. Metadata		EXT09.01 EXT09.03				X X
EOSD1710	ECS elements shall exchange with ADCs/ODCs, such as NOAA and other data processing and archiving facilities, information including the following: d. Science Data		EXT09.01 EXT09.03				X X
SDPS0020	The SDPS shall receive EOS science, and engineering data from the SDPF, and non-EOS ancillary data (as listed in Appendix C) from ADCs.	IR-1: Applies only to ingest and temporary storage for testing purposes only; data from NOAA will be via ftp of science and engineering data from SDPF, and ancillary data from ADCs (NOAA). APPLIES ONLY TO GSFC DACC AND LaRC DAAC	EXT09.01 EXT09.03				X X X

Attachment B - Open DRs

DR SMOdr00030 System: ECS Submitted: 960220
Status: ASSIGNED-ANALYSIS 2 enclosures Assigned-Anal: 960222

TITLE: "Polling DAN file log"

SUBMITTAL INFORMATION		ANALYSIS INFORMATION	
System:	ECS	Assignee1/Org:	Nitin Vazarkar
Rel/Ver:	IR1.02	Phone:	925-0406
Subsystem:	Ingest	Email:	nvazarka@eos.hitc.com
Test Phase:	system I&T	Assignee2/Org:	
Severity:	3	Phone:	
Date found:	960220	Email:	
Site/Location:	GSFC DAAC	Date due (Sev=1,2):	
Related NCR #:	None	Analysis Summary:	
Submitter:	gbazzell	Affects:	
Organization:	SI&T	Date completed:	
Phone number:	301-982-5414		
Email:	gbb@cclink.gblt.inmet.com		

RESOLUTION INFORMATION		DELIVERY INFORMATION	
Assignee/Org:		Rel/Ver:	
Phone:		Delivery Date:	
Email:			
Related CCR #:			
Projected Del/Rel:			
Date completed:			

VERIFICATION INFORMATION		CLOSING INFORMATION	
Assignee/Org:		Date Closed:	
Phone:			
Email:			
Date Verified:			
Test Status:			

********** Problem Description (for SMOdr00030) **********
While dry-running EGS Test Version I&T procedure EXT09
three files were placed in the poll directory for
FTP to the GSFC ingest system by the GSFC Polling
function. There is a log file in the ../bin directory
called DANFile, where the log of the internal DAN
from the polling process to the ingest is kept.
The "file size field" always equaled zero, even though
the the transfered files had data in them and the actual
file size was greater than zero.

********** Analysis (for SMOdr00030) **********
Awaiting analysis.
********** History **********
bugs 960220 111445 Submitted to ECS by gbazzell
xddts 960222 114506 N -> A (Assigned-Eval to Nitin Vazarkar) by ckolb
xddts 960222 114517 Enclosure "Analysis" added by Nitin Vazarkar
xddts 960222 152204 Fields modified by ckolb

xddts 960222 152250 Fields modified by ckolb

DR SMOdr00031 System: ECS Submitted: 960220
Status: ASSIGNED-ANALYSIS 2 enclosures Assigned-Anal: 960222

TITLE: "Internal DAN not sent from polling"

SUBMITTAL INFORMATION	ANALYSIS INFORMATION
System: ECS	Assignee1/Org: Nitin Vazarkar
Rel/Ver: IR1.02	Phone: 925-0406
Subsystem: Ingest	Email: nvazarka@eos.hitc.com
Test Phase: system I&T	Assignee2/Org:
Severity: 3	Phone:
Date found: 960220	Email:
Site/Location: GSFC DAAC	Date due (Sev=1,2):
Related NCR #: None	Analysis Summary:
Submitter: gbazzell	Affects:
Organization: SI&T	Date completed:
Phone number: 301-982-5414	
Email: gbb@cclink.gblt.inmet.com	

RESOLUTION INFORMATION	DELIVERY INFORMATION
Assignee/Org:	Rel/Ver:
Phone:	Delivery Date:
Email:	
Related CCR #:	
Projected Del/Rel:	
Date completed:	

VERIFICATION INFORMATION	CLOSING INFORMATION
Assignee/Org:	Date Closed:
Phone:	
Email:	
Date Verified:	
Test Status:	

********** Problem Description (for SMOdr00031) **********
While dry-running EGS Test Version I&T procedure EXT09
three files were placed in the poll directory for
FTP to the GSFC ingest system by the GSFC Polling
function. There is a log file in the ../bin directory
called DANFile, where the log of the internal DAN
from the polling process to the ingest is kept.
Three files were transfered by the ingest polling,
and found in the Temp_store directory,
but only two were logged in the DANFile.

The missing file was the last file gotten, and
also the largest at a file size of 16.5 Mb.

********** Analysis (for SMOdr00031) **********
Awaiting analysis.
********** History **********
bugs 960220 112032 Submitted to ECS by gbazzell
xddts 960222 114625 N -> A (Assigned-Eval to Nitin Vazarkar) by ckolb
xddts 960222 114635 Enclosure "Analysis" added by Nitin Vazarkar
xddts 960222 114650 Fields modified by ckolb

xddts 960222 152357 Fields modified by ckolb